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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,904	01/13/2004	Bradley L. Beach	2002-0794.02	1580

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EXAMINER

ZIMMER, MARC S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/755,904

Applicant(s)

BEACH ET AL.

Examiner

Marc S. Zimmer

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15 and 29 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-14, 16-21 and 23-28 is/are rejected.
- 7) ☒ Claim(s) 8 and 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01/13/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 1712

Prior to issuing this Office action, Applicant and the Examiner held somewhat detailed discussions concerning problematic claim language that would have elicited a rejection under 35 U.S.C 112, second paragraph. At that time, the Examiner believed that the prior art had failed to anticipate or render obvious the instant invention hence the case could be allowed if the aforementioned minor issues could be resolved.

However, in the course of performing an inventor search to ensure that there were no double patenting conflicts, the Examiner came across a reference cited in a co-pending application that appears to be combinable with the best art known previously to the Examiner. Accordingly, Applicant is advised that the case cannot be allowed at this time so that a prior art rejection representing an obstacle to patentability may be made of record. The Examiner sincerely regrets any inconvenience this may have caused the Applicant.

Claim Objections

Claims 1-29 are objected to due to the manner in which Applicant describes the graft polymer curative. In particular, the curative is said to "comprise" diol, polyol, diamine, or polyamine. The Examiner's objections are related to the fact that there are numerous examples of similar language in the prior art where the connotation was supposed to be that the graft polymer was *derived from* polyols, polyamines, etc. The Examiner does not believe that this was the intended meaning in the present case but, ultimately, the claims should be amended to clarify the relationship between these moieties and the structure of the polymer as a whole. It is submitted that Applicant

Art Unit: 1712

might consider amending each of the independent claims to recite a graft polymer curative... comprising at least two hydroxyl and/or amino groups.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 13, 14, and 16 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. According to Applicant's Specification, the "polyurethane mixture" contains those materials essential to making the polyurethane elastomer of which the claimed roll is constituted. However, in both claims 1 and 16, said mixture contains no source of isocyanate groups. It is, therefore, necessary to insert mention of the urethane prepolymer into each of claims 1 and 16.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 8-14, 16-21, and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beach et al., U.S. Patent # 5,874,172 in view of Robertson, U.S. patent # 4,504,172. Beach teaches (abstract) the manufacture of a developer roller for an electrophotographic device comprising every element of the claimed polyurethane mixture including urethane prepolymer, polybutadiene, tri-functional polyol curative,

Art Unit: 1712

conductive modifier, and hydrolytic stabilizer (paragraph bridging columns 5 and 6) with the exception of the graft polymer curative.

Robertson suggests adding a polyfunctional siloxane graft polymer (column 6, lines 53-58) to a moldable polyurethane-forming composition as an internal release agent to obviate the need for coating the mold prior to making a PU molded part. (It is explained that the need to add an external mold release agent, i.e. external to the molded article-forming composition, is disadvantageous for several reasons, all of which are outlined in columns 1 and 2 of the document.) The polyfunctional siloxane graft polymer is integrated into the polyurethane product (column 7, lines 11-16) thereby conferring upon the polyurethane molded article a lubricity that negates the need for an external release agent. Insofar as the roller disclosed by Beach is one that is manufactured using a molding operation, it would have been obvious to one of ordinary skill in the art to add the siloxane graft polymers taught by Robertson to the roll-forming composition taught by Beach so as to eliminate the need for external release agents in the roll-forming process.

Concerning claims 3-11, 13-14, 17-21, and 23-26, each of these more specific embodiments of the materials listed in claims 1 and 16 are mentioned in columns 2-4. As for claims 12, 27, and 28, "products of identical chemical composition can not have mutually exclusive properties." A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). See also *In re Best*, 562 F.2d

Art Unit: 1712

1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established." Insofar as the roll suggested by the combination is obtained from the same materials as is the presently claimed roll, these properties would seem to be inherent.

Section 2112.01 of the MPEP emphasizes that, "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). "Whether the rejection is based on inherency' under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same...[footnote omitted]." The burden of proof is similar to that required with respect to product-by-process claims. *In re Fitzgerald*, 619 F. 2d 67, 70, 205 USPQ 594, 596 (CCPA 1980) (quoting *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)). However, "A prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product." *In re Best*, 562 F.2d at 1255, 195 USPQ at 433.

Allowable Subject Matter

Claims 8 and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. It will be understood by the skilled artisan that the term "side chain" refers to a residue that is pendant to whatever residue is

Art Unit: 1712

regarded as being the backbone in the parlance of polymer chemistry. (Usually, but not always, the longer segment is assigned the label of backbone but the synthetic strategy by which the graft polymer is formed, among other things, sometimes, dictates that a shorter chain may be considered the backbone.) Robertson clearly regards the silicone segment as the backbone and this notion is solidly supported by the approach employed to form the copolymer, i.e. grafting polymers or polymerizable groups onto an organohydrogensiloxane by hydrosilylation. Claims 15 and 29 are allowed for the same reason.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marc Zimmer
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AU 1712